METHOD AND APPARATUS FOR SUCCESSIVE LINEAR APPROXIMATION TO OBTAIN A SPECIFIC POINT OF A NON-LINEAR MONOTONIC FUNCTION

Abstract of the Disclosure

A method and apparatus for successive linear approximation to obtain a specific point on a non-linear monotonic function include processing that begins by obtaining a T-coordinate for the specific point. The specific point includes a T-coordinate and an N-coordinate. The process then continues by selecting a minimum point and a maximum point on the non-linear monotonic function to bound the specific point. The processing then continues by deriving a linear reference between the minimum and maximum points. The process then proceeds by obtaining a reference N-coordinate that lies on the linear reference based on the T-coordinate. The process then continues by determining a reference T-coordinate lying on the non-linear monotonic function based on the referenced N-coordinate. The process then continues by determining whether the referenced T-coordinate is substantially similar to the T-coordinate. When the referenced T-coordinate is not substantially similar to the T-coordinate, re-defining the minimum point or the maximum point based on the referenced T-coordinate. The process then repeats until the referenced T-coordinate is substantially similar to the T-coordinate. Once the referenced T-coordinate is substantially similar to the T-coordinate, the referenced N-coordinate is determined to be substantially equal to the N-coordinate such that the specific point.